

## **DEGENERATE LEVEL QUBIT OPERATIONS**

### **ABSTRACT**

5        A method for quantum computing with a quantum system comprising a first energy level, a second energy level, and a third energy level. The first energy level and said second energy level are capable of being degenerate with respect to each other. In the method a signal is applied to the quantum system. The signal has an alternating amplitude at an associated frequency such that (i) the frequency of the signal correlates  
10 with an energy level separation between the first energy level and the third energy level or (ii) the frequency of the signal correlates with an energy level separation between the second energy level and the third energy level. The signal induces an oscillation in the state of the quantum system between the first energy level and the second energy level.